Headquarters U.S. Air Force

I n t e g r i t y - S e r v i c e - E x c e l l e n c e

Capabilities Based Requirements

HQ USAF/XORD
10 Mar 04

U.S. AIR FORCE

Integrated Schedule

U.S. AIR FORCE

MS A	MS B	MS C	IOC	FOC
Concept Refinement	Technology Development	System Development & Demonstration	Production & Deployment	Operations & Support
			LRIP FRP	

ICD Stage I   ICD Stage II   CDD   CPD

FSA Plan   FSA   AoA Plan   AoA   Modifications

AFROCC   AFROCC   AFROCC

RSR   RSR   JROC   RSR   JROC   RSR   JROC

Capabilities Based Requirements Development (AFI 10-601)

Select MDA   ADM   SAMP   SAMP   SAMP

TDS   PMD

Concept Decision   ISP   ISP   Operations & Support

COA   DAB   DAB   DRR   DAB   FRP Decision

Operation of Capabilities Based Acquisition System (AFI 63-101)

T&E Strategy   TEMP   TEMP   TEMP

OA   OA   FDE

EOA   LFT&E   IOT&E   FOT&E

Tester Involvement   Integrated Government T&E

Contractor Testing

ITT Stand Up   OT&E Certification

Capabilities Based Test and Evaluation (AFI 99-103)

Tailored Process for Space: Acquisition Phase

U.S. AIR FORCE

Integrity - Service - Excellence

3

XOR Organization

Dir Operational Capabilities Rqts
Maj Gen (S) Goldfein, XOR

Dep Dir CONOPS Champion
Brig Gen (S) Kowalski, DXOR

Dep Dir Operational Capabilities Reqts
Mr Disbrow, SES, DXOR

Global Mobility (GM)

Global Persistent Attack (GPA)

Global Strike (GS)

Homeland Security

Integration

Nuclear Response

Space & C4ISR

XORC, GR/GS Capabilities

XORD, Integration & Mgt

XORI, C2ISR Capabilities

XORM, GM Capabilities

XORP, Program Integration

XORR, Space Capabilities

XORS, Combat Survivability & EW

XORW, Weapons

U.S. AIR FORCE

CONOPS

Effect

Effect

Effect

Capability → **Program**

Capability → **Program**

Capability → **Program**

Capability → **Program** ~~X~~ *Redundancy*

Capability — **GAP** — **ICD** → **CDD CPD** → **Program**

Capability — **Shortfall** — **CPD** → **Mod**

- **Early and continuous Operator involvement is imperative**

- **Does not stop with defining the capability required**

- **Collaboration between all stakeholders is key**

- **CJCSI 3170.01C**, **Joint Capabilities Integration and Development System**
  - **Effects-based** / **capabilities** focus
  - **Canceled MNS and ORDs**
  - **Milestone A: ICD** - Initial Capabilities Document
  - **Milestone B: CDD** - Capability Development Document
  - **Milestone C: CPD** - Capability Production Document

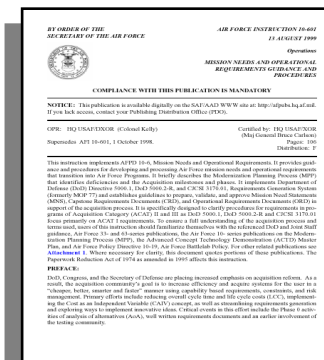- **CJCSI 6212.01C**, **Interoperability and Supportability of Information Technology and National Security Systems**
  - **Net-Readiness KPP**

- **AFI 10-601**, **Capabilities Based Requirements Development**
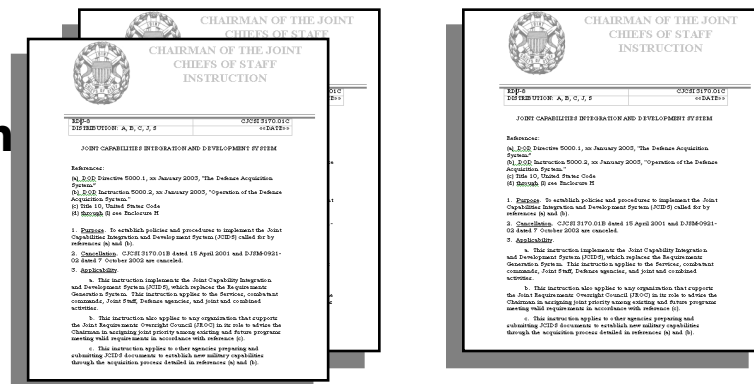
**CJCSI 3170.01C
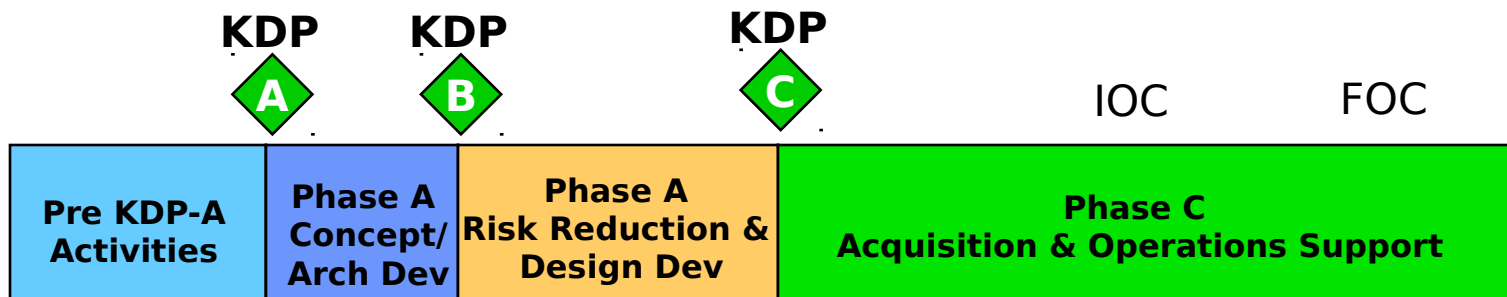CJCSI 3170.01M
24 Jun 2003**
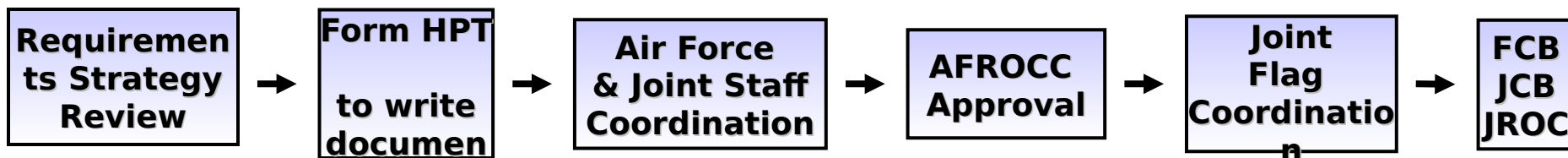
**CJCSI 6212.01C
20 Nov 2003**

**AFI 10-601
14 Oct 2003**

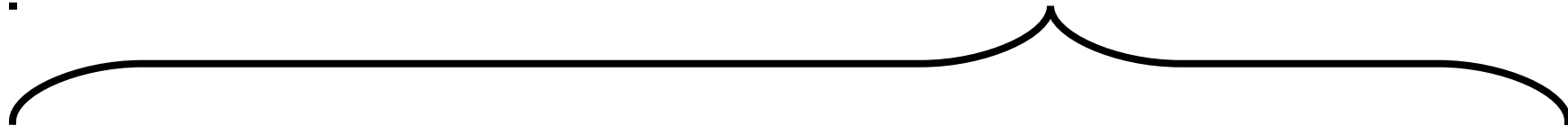# *Capabilities Requirements Development Process*
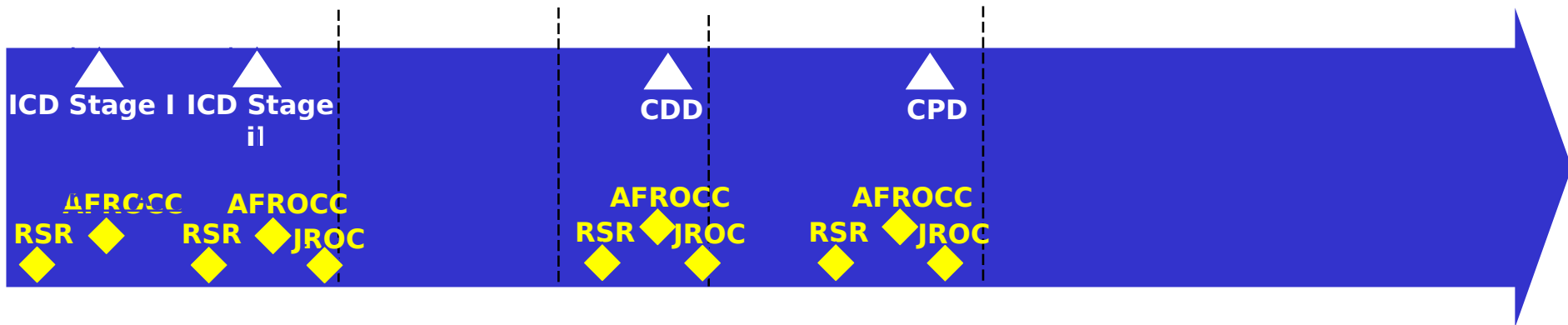
U.S. AIR FORCE

KDP **A**

KDP **B**

KDP **C**

IOC   FOC

Pre KDP-A Activities	Phase A Concept/ Arch Dev	Phase A Risk Reduction & Design Dev	Phase C Acquisition & Operations Support

ICD Stage I   ICD Stage iI

CDD

CPD

AFROCC   AFROCC
RSR   RSR   JROC

AFROCC
RSR   JROC

AFROCC
RSR   JROC

Capability	GAP	ICD	CDD	CPD	→	Program

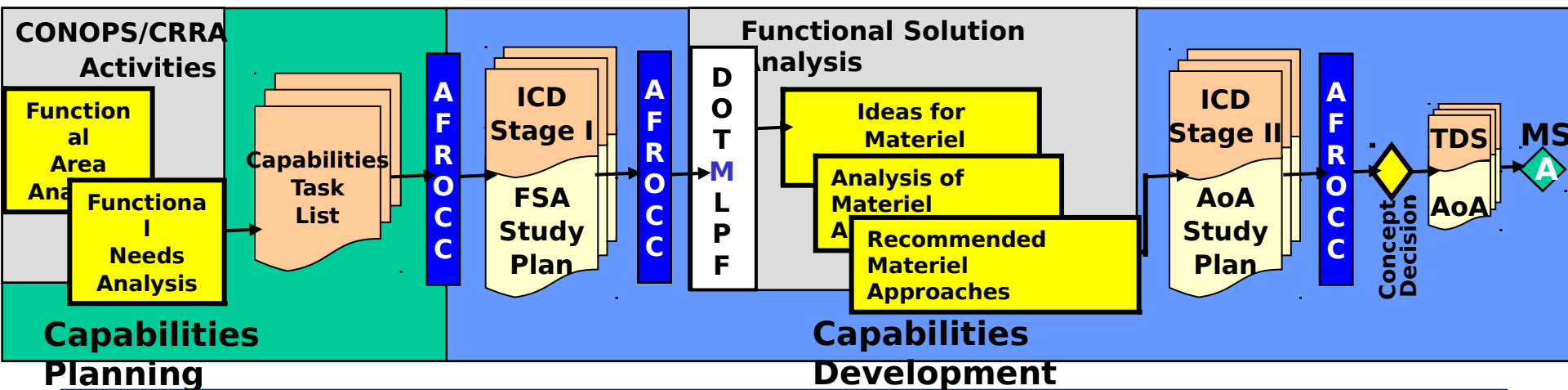| Requirements Strategy Review	→	Form HPT to write document	→	Air Force & Joint Staff Coordination	→	AFROCC Approval	→	Joint Flag Coordination	→	FCB JCB JROC
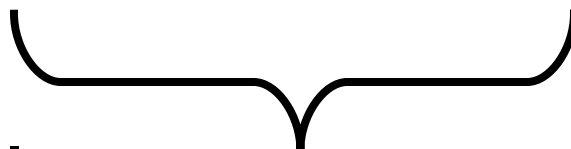
- **ICD Stage 1**
  - **Documents & defines capability gap**
  - **Lays foundation for Functional Solution Analysis (FSA)**
  - **Sections 1 – 5**

- **ICD Stage 2**
  - **Documents results of FSA**
  - **Provides recommendation for materiel / non-materiel approaches**
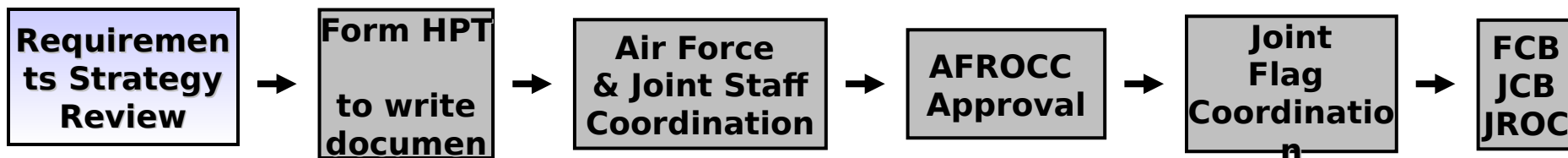 - **Sections 1-7**

Requirements Strategy Review (RSR)

- **Obtain Mr. Disbrow's approval of requirements strategy**

- **Describe**
  - **Required capability**
  - **CONOPS**
  - **Military effects**
  - **Constraints**
  - **Schedule**
  - **High Performance Team (HPT) members**
  - **Document preparation timeline**
  - **Interoperability**
- **RSR mandatory for all documents**
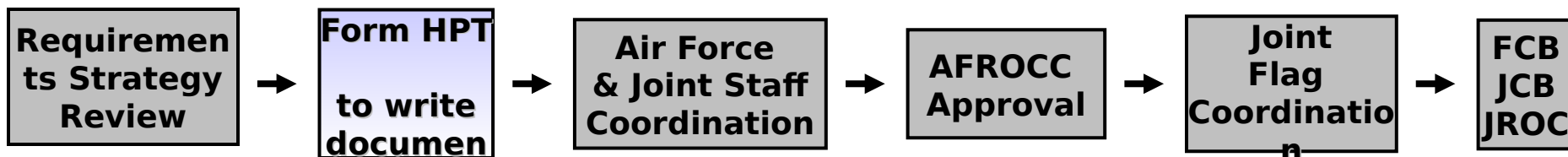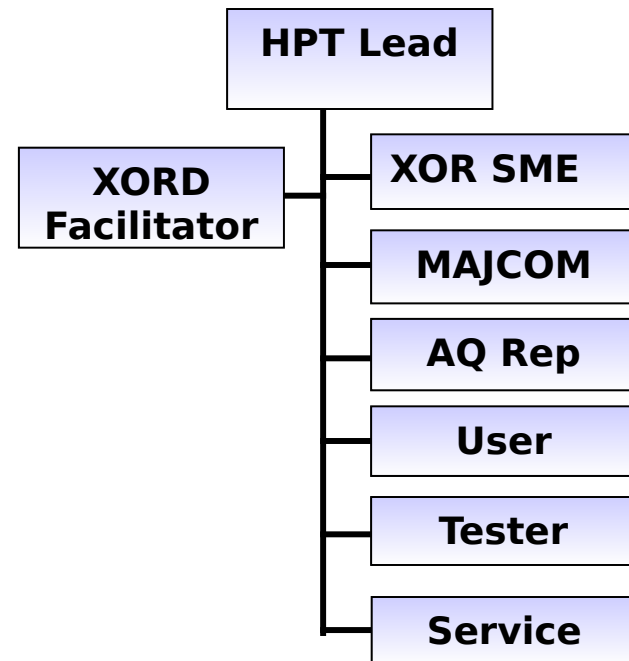
Mr Harry Disbrow, DXOR

Requirements Strategy Review	→	Form HPT to write document	→	Air Force & Joint Staff Coordination	→	AFROCC Approval	→	Joint Flag Coordination	→	FCB JCB JROC

High Performance Team

- **1 to 2 week document writing effort**
- **Core team**
  - **AF/XORD facilitates**
  - **Members come prepared**
  - **Small team**
  - **Usually led by MAJCOM**
  - **Dedicated to the task**
  - **Empowered by organization**
- **Support team**
  - **Conduit to other stakeholders**
  - **Act as subject matter expert**
  - **Provide support, as needed**
  - **Architecture expert**

```
                    ┌──────────────┐
                    │   HPT Lead   │
                    └──────┬───────┘
                           │
┌──────────────┐      ┌────┴─────────┐
│    XORD      ├──────┤   XOR SME    │
│ Facilitator  │      └──────────────┘
└──────────────┘      ┌──────────────┐
                      │   MAJCOM     │
                      └──────────────┘
                      ┌──────────────┐
                      │   AQ Rep     │
                      └──────────────┘
                      ┌──────────────┐
                      │    User      │
                      └──────────────┘
                      ┌──────────────┐
                      │   Tester     │
                      └──────────────┘
                      ┌──────────────┐
                      │   Service    │
                      └──────────────┘
```

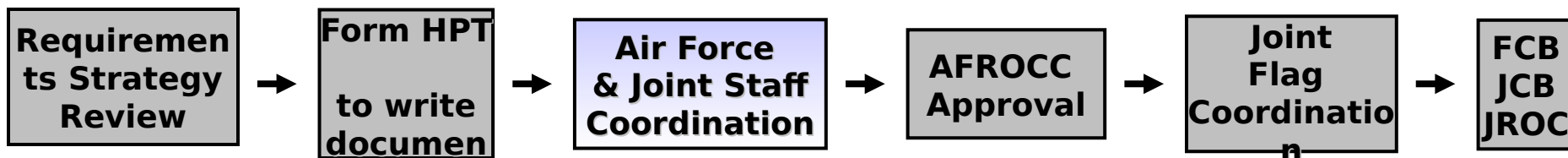| Requirements Strategy Review	→	Form HPT to write document	→	Air Force & Joint Staff Coordination	→	AFROCC Approval	→	Joint Flag Coordination	→	FCB JCB JROC

Air Force & Joint Staff Coordination

- **Internal MAJCOM coordination**

- **Other MAJCOM coordination**

- **Air Staff and Joint Staff (O-6) coordination**
  - **Allow 35 days for AF**
  - **Allow 25 days for Joint Staff 0-6**
  - **Allow 10 days for Joint Potential Designator (JP**

- **JPD**
  - **JROC Interest**
  - **Joint Integration**
  - **Independent**

U.S. AIR FORCE

| Requirements Strategy Review | → | Form HPT to write document | → | Air Force & Joint Staff Coordination | → | AFROCC Approval | → | Joint Flag Coordination | → | FCB JCB JROC |

Air Force & Joint Staff Coordination

- **MAJCOM POC** performs internal and external MAJCOM coordination

- **Air Staff** functional performs Air Staff coordination
  - **One pass (Directorate level)**

- **AF/XORD** performs policy review & is conduit for Joint Staff coordination

- **MAJCOM POC** resolves comments

- Resolve **all critical** comments before AFROCC

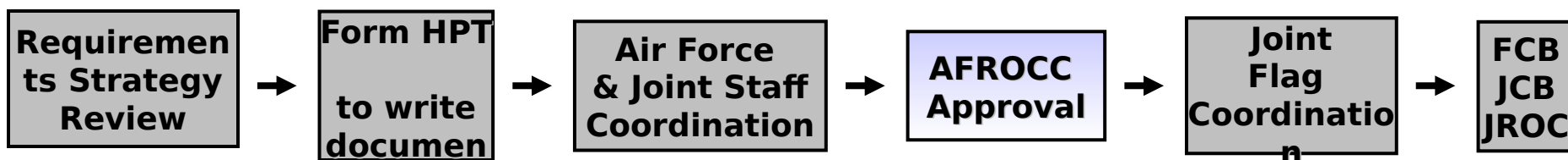- Address **all substantive** comments before AFROCC

U.S. AIR FORCE

| Requirements Strategy Review | → | Form HPT to write document | → | Air Force & Joint Staff Coordination | → | AFROCC Approval | → | Joint Flag Coordination | → | FCB JCB JROC |
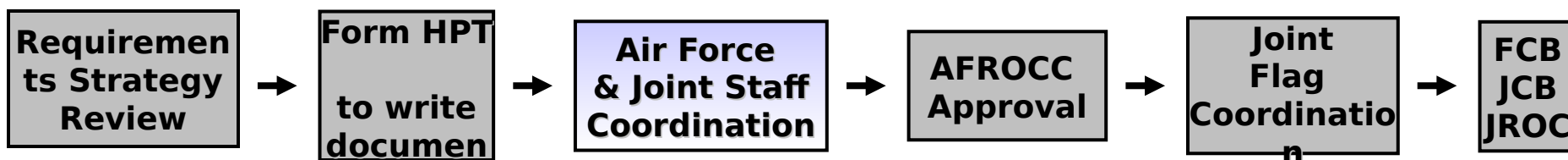
AF Requirements for Operational Capabilities Council

- **Reviews** and **validates**:
  - **Requirement** documents (ICDs, CDDs, CPDs)
  - Required **architecture** views
  - Analysis of Alternatives (**AoA**) study plans/results

- **Members: MAJCOMs, SAF/AQ, AF/IL, AF/TE, AF/XP, AF/XI, AF/XOI, AF/CIO, AFOTEC, AFRC, ANG, AFC2ISRC**

- **Observers: MDA, USA, USN, USMC, OAS, SAF/USA and AFSAA**
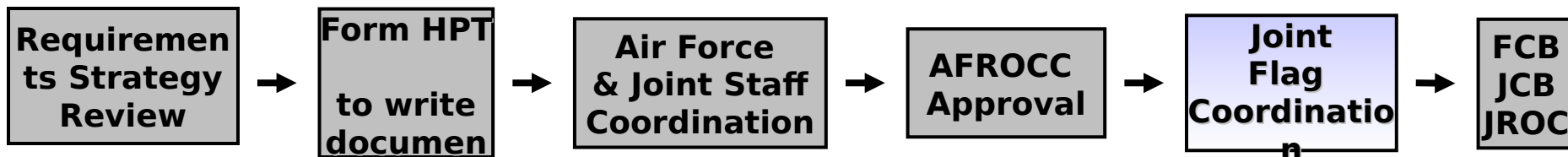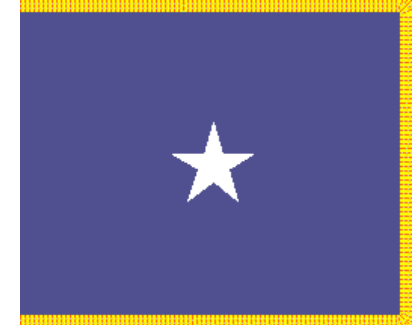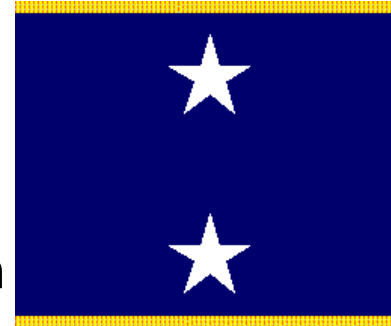
AFROCC Chairman Maj Gen (S) Goldfein, XOR

Requirements Strategy Review	→	Form HPT to write document	→	Air Force & Joint Staff Coordination	→	AFROCC Approval	→	Joint Flag Coordination	→	FCB JCB JROC

Joint Flag Coordination

- **Obtain Joint Flag coordination on JROC interest and Joint Integration**

- **Allow 21 days for coordination**

- **J-8 Flag coordination before JROC**

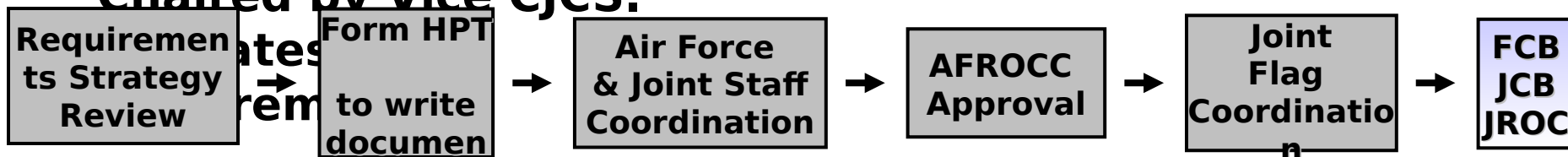| Requirements Strategy Review | → | Form HPT to write document | → | Air Force & Joint Staff Coordination | → | AFROCC Approval | → | Joint Flag Coordination | → | FCB JCB JROC |

FCB, JCB & JROC

- **Functional Capability Board (FCB): Chaired by J-8 VDRA. Provides oversight of JCIDS process.**

- **Joint Capability Board (JCB): Chaired by Director J-8. Reviews joint requirements.**

- **Joint Requirements Oversight Council (JROC): Chaired by Vice CJCS.**

**JCB Chairman
Lt Gen Cartwright, J8**

**JROC Chairman
Gen Pace, Vice CJCS**

| Requirements Strategy Review | → | Form HPT to write document | → | Air Force & Joint Staff Coordination | → | AFROCC Approval | → | Joint Flag Coordination | → | FCB JCB JROC |

Key Points To Remember

- **RSR:**
  - **Single most important step to make sure you are writing the correct document, have right people involved, and have right approach.**
  - **You can not build an RSR by yourself (collaborate)**

- **ORD / MNS:**
  - **Must meet MS B or C prior to Jun 2005**
  - **If in doubt, plan for a CDD or CPD**
  - **No MNS older then 2 years can support MS A**

- **HPT Benefits:**
  - **XORD led HPT allows concurrent O-6 staffing**
  - **Gain 2-3 months on staffing**

- **Analysis and Rationale:**
  - **Focus for CDDs and CPDs**
  - **Basis for thresholds and objectives**

- **CRM:**
  - **Joint Staff considers 15 day comment resolution a suspense**
  - **CRMs older then 6 months are going back into Joint Staff O-6 review**

- **Net Ready KPP**
  - **Documents entering staffing now – May 04, must have a migration strategy**
  - **By Jun 2004 all new documents entering JCIDS staffing must have a Net ready KPP**
  - **Legacy documents are grand fathered until updated**

AF/XOR Web site,
https://www.xo.hq.af.mil/xor/restricted/

U.S. AIR FORCE

AF/XOR Web site, https://www.afreqs.hq.af.mil/

REQUIREMENTS INTEGRATION & MANAGEMENT DIVISION
A F / X O R D

CAPABILITIES
REQUIREMENTS
DOCUMENT

EDEN GOLDFEIN
AF/XOR

Home	Organization	Site Index	Guidance	CCD (aka CMNS)	XOR Home Page
Training	Reqts Strategy	HPT	Staffing Docs	AFROCC	IRSS

HIGH PERFORMANCE TEAMS :: HPT

The High Performance Team (HPT) workspace at Rosslyn is an open storage facility at the Secret classification level. All visitors to the facility must therefore provide Visit Requests. Before the HPT convenes, please fax your visit request to the attention of your HPT Facilitator at fax number: 703-696-6984.
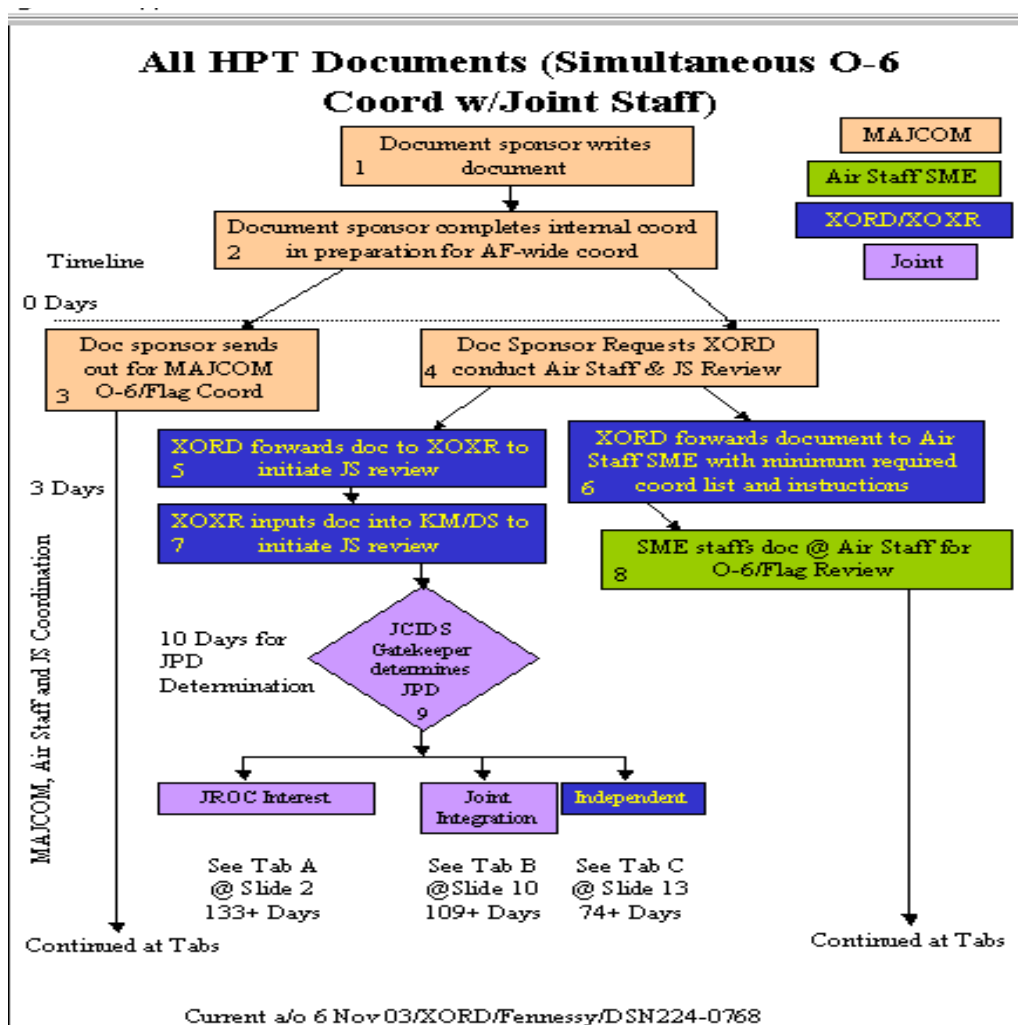
HPT MENU

HPT GUIDANCE	XORD DOCUMENT STAFFING STATUS	AFI 10-601
HELPFUL HINTS	NEED ASSISTANCE?	XORD ARCHITECTURE PAGE
NET READY KPP INFO		

All HPT Documents (Simultaneous O-6 Coord w/Joint Staff)

MAJCOM

Air Staff SME

XORD/XOXR

Joint

1. Document sponsor writes document
2. Document sponsor completes internal coord in preparation for AF-wide coord
3. Doc sponsor sends out for MAJCOM O-6/Flag Coord
4. Doc Sponsor Requests XORD conduct Air Staff & JS Review
5. XORD forwards doc to XOXR to initiate JS review
6. XORD forwards document to Air Staff SME with minimum required coord list and instructions
7. XOXR inputs doc into KM/DS to initiate JS review
8. SME staffs doc @ Air Staff for O-6/Flag Review
9. JCIDS Gatekeeper determines JPD

Timeline
0 Days
3 Days
10 Days for JPD Determination

MAJCOM, Air Staff and JS Coordination

JROC Interest — See Tab A @ Slide 2 — 133+ Days
Joint Integration — See Tab B @ Slide 10 — 109+ Days
Independent — See Tab C @ Slide 13 — 74+ Days

Continued at Tabs

Continued at Tabs

Current a/o 6 Nov 03/XORD/Fennessy/DSN224-0768

Information & Resource Support System (IRSS)

- **Web based information management tool**
  - **Integrates planning, requirements and financial information**
  - **Facilitates development, transfer and staffing of documents**
  - **Provides AF-wide repository for requirements documents**
  - **Allows collaboration between geographical organizations**
- **24-Hour Level I Help Desk Support – DSN 596-5**
- **Web-Based Training - http://online.afit.edu/msg/**

iRSS

- **Capabilities requirement courses**
  - **REQ 111** - **Operational Requirements Basic Course (AFIT)**
    - **Peterson AFB: 3-5 Aug 04**
  - **SYS 283** – **Introduction to Architecture (AFIT)**
    - **HQ/USAF: 8-9 Apr 04**
- **POCs**
  - **REQ 111: Ms Shawn Riordan, shawn.riordan@pentagon.af.mil**
  - **SYS 283: Capt Brian Hartt, brian.hartt@afit.edu**

- **Numerous changes to improve fielding of capabilities to the warfighters**

- **AF/XORD POCs:**

  - **Requirements Generation Branch:**
    Lt Col Craig Nygaard, DSN 426-5002
    craig.nygaard@pentagon.af.mil

  - **Requirements Policy Branch:**
    Maj Jeff Neischel/Maj Vic Little
    DSN 224-0769/0361
    jeffrey.neischel@pentagon.af.mil
    victor.little@pentagon.af.mil

  - **Integration Branch:**
    Lt Col Claude Salcedo, DSN 225-8628
    claude.salcedo@pentagon.af.mil

Headquarters U.S. Air Force

Integrity - Service - Excellence

Questions?

U.S. AIR FORCE

Backups

Air Staff Roadshow Handout

Capabilities Requirements:

- **Web site: https://www.afreqs.hq.af.mil/**

- **IRSS:**
  - **24-Hour Level I Help Desk Support – DSN 596-5771**
  - **Web Training - http://online.afit.edu/msg/irss**

- **POCs:**
  - **Requirements Generation Branch: Lt Col Craig Nygaard, DSN 426-5002 craig.nygaard@pentagon.af.mil**
  - **Requirements Policy Branch: Maj Vic Little, DSN 224-0361 victor.little@pentagon.af.mil**
  - **Integration Branch: Lt Col Claude Salcedo, DSN 225-8628 claude.salcedo@pentagon.af.mil**

- **Training: Requirements 111 - shawn.riordan@pentagon.af.mil**

- **Key points to remember**
  - **RSR – very important**
  - **ORDS / MNS are gone**
  - **HPTs – beneficial**
  - **Analysis – key**
  - **NR KPP – must do**

Gatekeeping Process

- **All JCIDS proposals will be submitted to Gatekeeper**
  - **Joint potential designator (JPD) will be assigned**
  - **Lead/supporting FCBs identified**
- **Proposals will then enter the staffing process**

GATEKEEPER

JCIDS Documents

KM/DS

JPD Decision

JROC Interest

Joint Integration

Independent

Knowledge Management/ Decision Support software tool

Joint Potential Designators
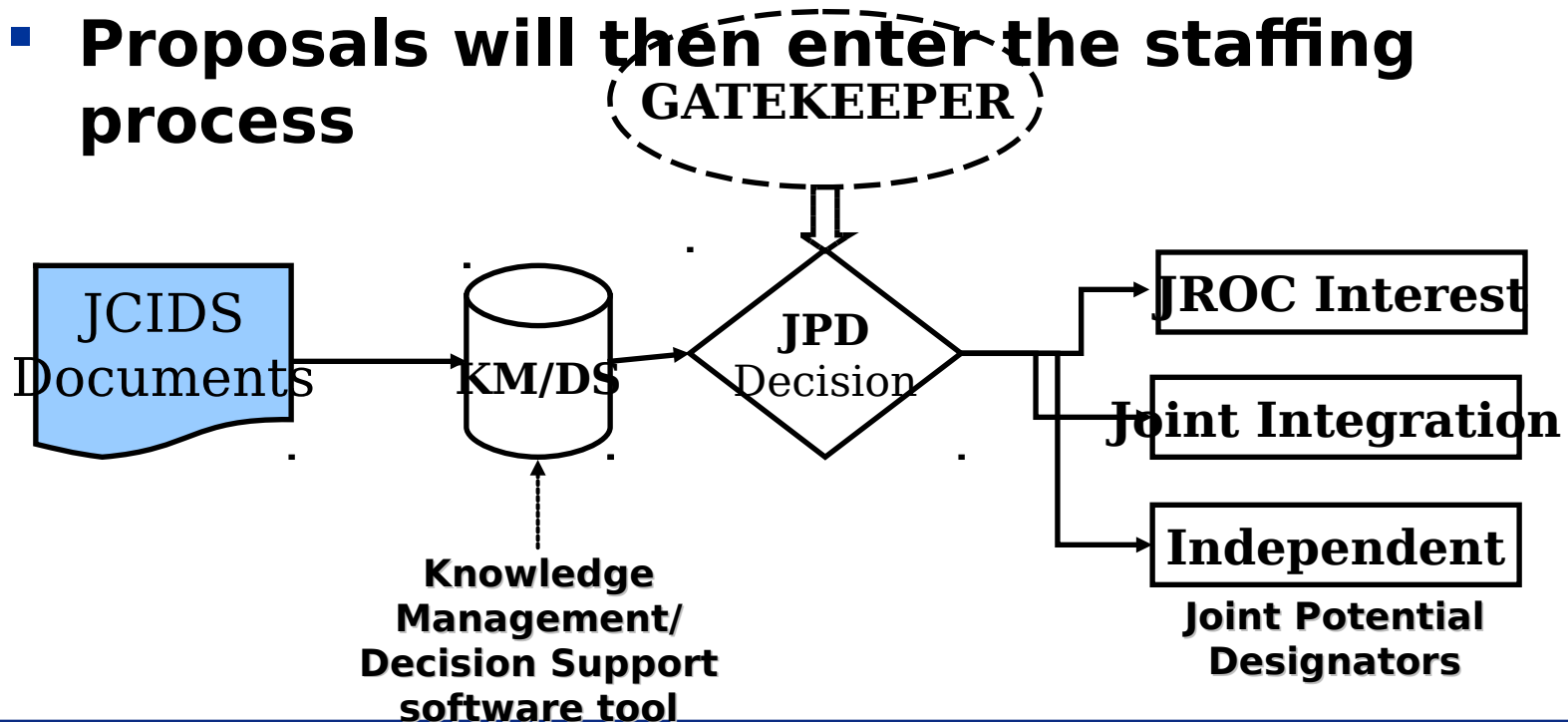
Joint Potential Designator (JPD) Definitions

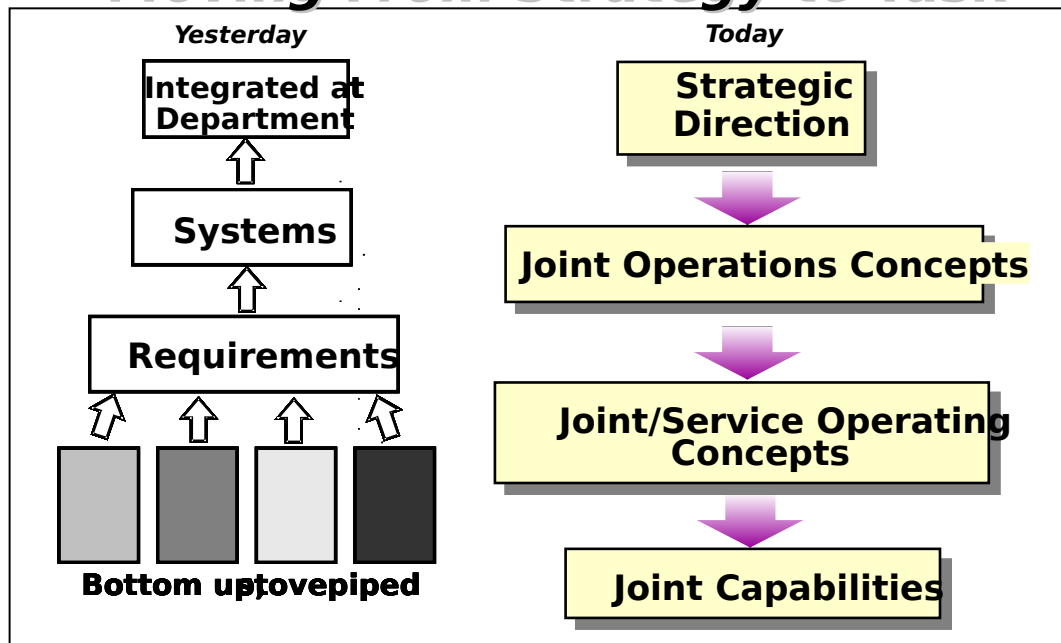- **J8 Assigns Joint Potential Designations**
  - **JROC Interest** – Approved at JROC (All ACAT I/IA)
  - **Joint Integration** – Requires certifications (threat, intel, C4I, insensitive munitions, NSS & IT interoperability and supportability), approved by service/component (ACAT II and below with no significant affect on joint force)
  - **Independent** – No certifications required, approved by service/component (ACAT II and below)

Moving From Strategy to Task

Yesterday

- Integrated at Department
- Systems
- Requirements

Bottom up Stovepiped

Today

- Strategic Direction
- Joint Operations Concepts
- Joint/Service Operating Concepts
- Joint Capabilities

- *Guidance*
- *Concepts*
- *Scenarios*
- *MOEs*
- *Capabilitie*

✓ **Improves analytical rigor in the process**

✓ **Focuses leadership on key decision points early**

✓ **Provides opportunities to adjust at the proper points along the way**

✓ **Shifts the focus from grading the homework in a threat based process to determining joint capability needs and orchestrating joint solutions**

CONOPS Vision

U.S. AIR FORCE

Air Force Concepts of Operations (CONOPS) ... will guide our planning and programming, requirements

...Air Staff designed a new review to replace the QAPR--we call this new approach a Capabilities Review and Risk Assessment (CRRA).

CHIEF'S SIGHT PICTURE:
Capabilities Review and Risk Assessment

What happened to the Quarterly Acquisition Review Program (QAPR)? In this Sight Picture, I'll answer that question--but to do so, I first need to give you a sense of the bigger picture in which the answer fits.

The Air Staff is currently working hard to lay the foundation for the next step in our transformation to a capabilities-focused Expeditionary Air and Space Force. Our goal is to make warfighting effects, and the capabilities we need to achieve them, the drivers for everything we do... development of new Task Force Co... planning and programming, requirements reform, and e... ...ven Task Force CONOPS that we are fleshing out--Global Strike Task ...y) is a prominent example and is the farthest along in development.

It's in this context the Air Staff has designed a new review to replace the QAPR--we call this new approach a Capabilities Review and Risk Assessment (CRRA). The focus of the CRRA will shift f... ...w to a review of how our programs contribute to ...fects. As with all aspects of ...orce CONOPS.

...me briefly describe the logic behind the CRRA construct. For our first time o... ...chute, we'll review the capabilities that support the GSTF. The CRRA will evaluate the health and risk of each of the required GSTF capabilities over the next 20 years. To accomplish this, we will review acquisition programs and discuss disconnects and prioritization in relation to how the programs support GSTF capabilities. The bottom-line goal for the CRRA is to give senior USAF leadership an operational, capabilities-based focus for acquisition program decisionmaking.

The target for the GSTF CRRA is June 2002. As future Task Force CONOPS are defined, we will hold CRRAs accordingly. SAF/AQ and AF/XO will lead us through this first cycle, with major input from the MAJCOMs. Much work needs to be done through the next four months to make this a successful review, and I need your support so our Air Force can move in the right direction--towards using operational warfighting effects as the origin for every piece of hardware and software we buy.

...make warfighting effects, and the capabilities we need to achieve them, the drivers for everything we ...

... shift from a program review to a review of how our programs contribute to warfighting capabilities and effects.

The CSAF Sight Picture http://afconops.hq.af.mil/support/csafcrra.pot

Joint Functional Areas & Concepts

Joint Operating Concepts

Joint Functional Areas & Concepts

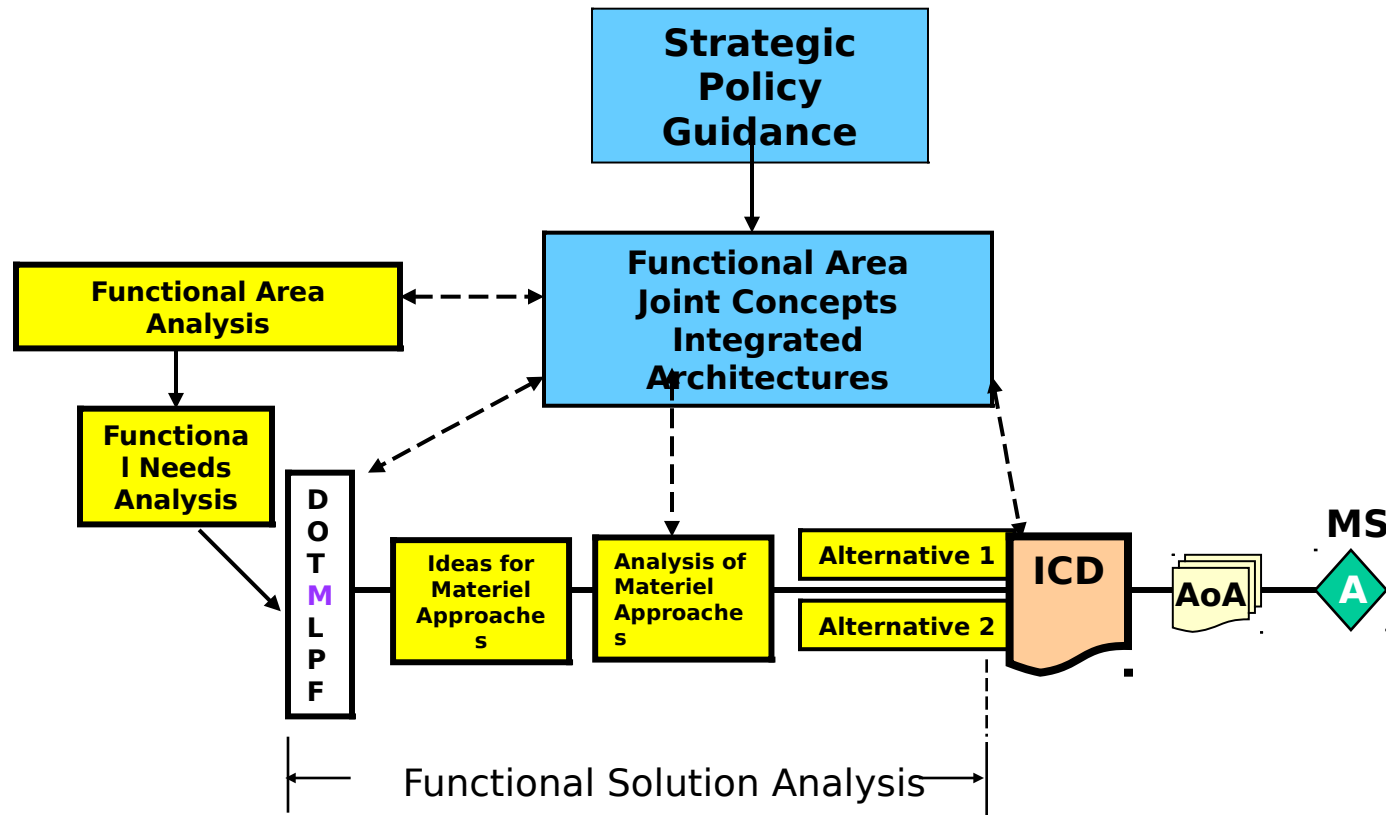|	Major Combat Operations (JFCOM)	Homeland Security (NORTHCOM)	Stability Operations (JFCOM)	Strategic Deterrence (STRATCOM)
Battlespace Awareness				
Command and Control				
Force Application				
Protection				
Focused Logistics				

Joint Capabilities Integration & Development System (JCIDS)

U.S. AIR FORCE

U.S. AIR FORCE

Strategic Policy Guidance

Functional Area Joint Concepts Integrated Architectures

Functional Area Analysis

Functional Needs Analysis

ICD Stage I

FSA Study Plan

AFROCC

DOTMLPF

Functional Solution Analysis

Ideas for Materiel

Analysis of Materiel Approaches

Recommended Materiel Approaches

ICD Stage II

AoA Study Plan

AFROCC

Concept Decision

AoA

TDS

MS A

Capability Planning

Capability Development